

PROGRAMME FOR ILLUMINATION II

January 13

BASIC LIGHTING DESIGN

Review of lighting terms — lumen method — interflame method — glare calculations.

LECTURER: Miss M. G. Currie

January 20

BASIC LIGHTING DESIGN

Selection of source — source distribution — basic brightness and illumination calculations.

LECTURER: Mr. H. F. Davidson

January 27

BASIC LIGHTING DESIGN PROBLEMS

Student solution of problems involving basic lighting design principles.

LECTURER: Miss M. G. Currie

February 3

WIRING

Electrical code — methods of wiring — distribution systems — conductors, circuits and their calculation — economics of wiring — design procedure — specifications.

LECTURER: Mr. J. Chisvin

February 10

WIRING PROBLEMS

Student solution of wiring problems.

LECTURER: Mr. J. Chisvin

February 17

LIGHTING ECONOMICS

Methods of cost analysis — economic factor affecting lighting design — effect of lighting systems on other services.

LECTURER: Mr. J. Chisvin

February 24

ARCHITECTURAL CO-ORDINATION

Illumination as an architectural feature.

LECTURER: Mr. H. F. Davidson

March 2

DAYLIGHTING DESIGN PRINCIPLES

Variability of daylight — fenestration — sun control.

LECTURER: Mr. H. F. Davidson

March 9

BRIGHTNESS AND GLARE

Consideration of source brightness, contrast and visual comfort in lighting systems.

LECTURER: Mr. G. E. Davidson

March 16

PRESENTATION OF VISUAL INFORMATION

Effects of light, colour, shape, etc., on visual perception — recognition of signal lights, perceptual effects of street lighting, etc.

LECTURER: Mr. J. Ogilvie



UNIVERSITY OF TORONTO
UNIVERSITY EXTENSION

Session 1959-60

Courses in

ILLUMINATION I
and
ILLUMINATION II

offered in co-operation with the
TORONTO SECTION,
ILLUMINATING ENGINEERING SOCIETY

ILLUMINATION I AND II

Offered in co-operation with the Toronto Section of the Illuminating Engineering Society, these courses are designed to provide essential theory (Illumination I) and the fundamental background necessary for all types of lighting design (Illumination II). In both courses considerable emphasis is placed on laboratory work and problems.

Both courses should be of interest to Consulting Engineers and Architects, lighting fixture designers, and manufacturer, contractor and distributor engineers and salesmen, specializing in lighting. Both courses are intended for people who are directly concerned with illumination design in their day-to-day work.

The material contained in Illumination I should be regarded as necessary background for students enrolling in Illumination II. There are no fixed entrance requirements but those wishing to take Illumination II would be well advised to take Illumination I this Fall and Illumination II in the Spring, unless they feel they have covered the essential theory in previous courses or through practical experience.

Because of the emphasis placed on open discussion, enrolment in both courses is limited to 40. There will be 10 lectures in each course.

COURSE DIRECTOR:

Miss M. G. Currie, B.A.Sc., P.Eng.
Department of Applied Physics,
University of Toronto.

COMMITTEE MEMBERS:

R. P. Lindsay — Chairman,
Canadian Lime Materials Ltd.
N. W. Bethune,
C & M Products Ltd.
Miss M. G. Currie,
University of Toronto.

PLACE: Room 25, Engineering Building.

TIME: 7.30 p.m., Wednesdays,
Illumination I, October 7—December 9,
Illumination II, January 13—March 18.

FEE: \$20.00 each.

Registration:

By mail or in person at Room 207, 65 St. George Street, 9 a.m. to 5 p.m. daily except Saturdays. Application forms and course literature may be obtained by writing to the Director, University Extension, 65 St. George Street, Toronto, or by telephoning WA 3-6611, locals 301, 304, 526, 527. In order to accommodate students and enable them to enrol during the evening, registrations will be taken—

Monday	September 14th
Wednesday	September 16th
Monday	September 21st
Wednesday	September 23rd
Monday	September 28th

from 7.30 to 9 p.m. in the Wallberg Building, corner of St. George and College Streets.

PROGRAMME

October 7

NATURE AND PRODUCTION OF LIGHT

The nature of light — the electro-magnetic spectrum — the production of light — spectral distribution — the visibility function — colour — luminous flux.

LECTURER: Miss M. G. Currie.

October 14

VISION — THE EYE

The structure of the eye — mechanism of perception — fixation — adaption — contrast sensitivity — visual acuity — persistence of vision-fatigue and after-images.

LECTURER: Dr. J. Ogilvie.

October 21

VISION — THE TASK

Size — time — brightness — brightness contrast — colour contrast — vision at low levels.

LECTURER: Dr. J. Ogilvie.

October 28

LIGHTING TERMS AND LAWS OF ILLUMINATION

Photometric quantities — Lambert's law — polar distribution.

LECTURER: Mr. G. E. Davidson

November 4

MEASUREMENTS

Visual photometers

Physical photometers

LECTURER: Mr. G. E. Davidson

November 11

MEASUREMENTS LABORATORY

Student use of photometric equipment

LECTURER: Mr. G. E. Davidson

November 18 and 25

FLUX, ILLUMINATION AND BRIGHTNESS CALCULATION

Theoretical source distribution — total flux — polar diagram — isocandela — isoplot — illumination protractor — point by point method.

LECTURER: Professor V. L. Henderson.

December 2

CONTROL OF LIGHT

Reflection, specular and diffused — absorption and transmission — refraction.

LECTURER: Mr. A. Birkhoff.

December 9

ILLUMINATION FOR SEEING—QUANTITY AND QUALITY

Quantity: illumination versus task.

Quality: glare, colour, modelling, shadows.

LECTURER: Mr. H. F. Davidson

December 16

SOURCE CHARACTERISTICS

Spectral distribution, control and characteristics of:

Tungsten filament lamps

Electric discharge lamps

Fluorescent lamps

LECTURER: Mr. H. C. Jones